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| 09/981,386 | 10/16/2001 | J. Thomas O'Brien | I-2-186.1US | 7050 |

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| EXAMINER |
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HARVEY, DIONNE

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| ART UNIT | PAPER NUMBER |
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2646

DATE MAILED: 12/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/981,386

Applicant(s)

O'BRIEN, J. THOMAS

Examiner

Dionne N. Harvey

Art Unit

2646

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 10 August 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) _____ is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 17 and 21-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. **Claims 17 and 21-24** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Bell (US 6,445,921)** in view of **Wenk (US 6,253,088)**, and further in view of **Ostling (US 6,327,470)**.

Regarding claim 17, In **figure 2**, Bell teaches a wireless dual use user equipment (UE) **110** capable of establishing communication with remote terminal device through a cordless **150** or a mobile base station **130**, thereby reading on "capable of operating in a cordless and cellular environment";

Shown in **figure 2**, Bell teaches that the UE comprises a cordless section **215**, and cellular section **220**; disclosed in **column 2, lines 62-64**, Bell teaches that each section is provided with respective antennas **230,235**, and respective transmitter/receiver devices, in **column 3, lines 1-12**, Bell teaches that each transmitter comprises a modulator for modulating transmitted signals, and a demodulator for demodulating received signals, which reads on "the dual-user equipment comprising: a

modulation and demodulation device for modulating/demodulating data using a plurality of modulation/demodulation schemes,";

In **figures 1 and 2**, Bell teaches that the cordless section **215** via its' antenna **230**, transmitter/receiver and modulator/demodulator units, operates in two-way communication with cordless base station **150**, thereby reading on "the plurality of modulation/demodulation schemes comprise a cordless scheme for communicating with a sub base";

While the cellular section **220** via its' antenna **235**, transmitter/receiver and modulator/demodulator units, operates in two-way communication with cellular network **130**, thereby reading on "the plurality of modulation/demodulation schemes comprise ... a cellular scheme for communicating with a base station";

Also shown in **figure 2** and discussed in **column 3, lines 63-66, column 4, lines 36-39 and column 4, 56-58**, Bell teaches that microprocessor **245** will automatically or by user initiation, switch between cordless operation and cellular operation, which reads on " a modulation and demodulation controller for switching the modulation/demodulation scheme of the modulation/demodulation device between the cordless scheme and the cellular scheme;"

In **column 3, lines 63-67**, Bell teaches that the switch between cellular and cordless modes result in handover between the cellular and cordless systems, thereby reading on "the modulation and demodulation controller initiating operation in the cellular environment by sending a handoff signal and switching to the cellular scheme; "

Bell does not clearly teach that the sub-base, responsive to the UE leaving the cordless environment, will cease communication with a cellular base station and whereby the UE will then communicate directly with the cellular base station.

In **figure 1 and figure 8**, Wenk teaches a sub base station **18** which communicates with both, a user equipment **10** and cellular base station **12**. In **column 3, lines 8-13, column 5, lines 6-10 and column 9, lines 5-11**, Wenk teaches that when the user equipment (UE) **10** is no longer in the predefined vicinity of the cordless sub base station **18**, the cordless sub base station **18** is "de-registered" with the cellular base station **12**, such that handover from the cordless sub base station **18** to the cellular base station **12** is initiated, causing the UE to communicate directly with the base station, thus reading on "a sub base responsive to a determination that said UE is leaving a cordless environment... ceases communications with a cellular base station and whereby the UE... begins communicating directly with the cellular base station."

It would have been obvious for one of ordinary skill in the art at the time of the invention to substitute the cordless sub base **18** of Wenk for the cordless sub base **150** of Bell, as the substitution will provide a means of anticipating call drop-off such that connection with the appropriate system is facilitated and the overall incidences of dropped calls is significantly decreased.

The combination of Bell and Wenk, does not clearly teach that the transition between said cordless and cellular schemes is transparent to the user sending or receiving a communication signal.

Ostling teaches a means for providing handover between a fixed-wire line network and a mobile network for a dual mode phone, which reads on "capable of operating in a cordless and a cellular environment". In **column 3, lines 1-11**, Ostling teaches that the device allows a user to continue a conversation while moving from a fixed-wire line network, into a mobile network, without any interruption in the voice or data connection, which reads on "such that a transition between said cordless and cellular schemes is transparent to a user sending or receiving a communication signal from said dual use UE;"

It would have been obvious for one of ordinary skill in the art at the time of the invention to combine the teachings of Bell, Wenk and Ostling, proving a dual mode phone capable of seamless transitioning between cordless and cellular schemes, for the purpose of allowing a user to move between a fixed-network and a mobile network, without the need for re-dialing the called party.

Regarding claim 21, in **column 3, lines 32-60 and column 4, lines 14-21**, Bell teaches that the cordless **215** and cellular **220** sections comprise received signal strength indicators (RSSI) **285,287** which indicate the strength of received signals and wherein the UE **110** can detect whether or not the cellular service, or cordless service, or both services are available, thereby reading on "the dual use UE determines it is leaving the cordless environment by measuring a received signal strength of a sub base transmission."

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Regarding claim 22, in **column 3, lines 54-60 and column 4, lines 14-21** of the Ostling reference, taken in combination with the disclosure of the Bell and Wenk references, teaches that once the signal strength is determined to be below a predetermined threshold, the controller of the device switches to the cellular environment.

Regarding claim 23, In **column 5, lines 32-36**, Wenk teaches that the cordless environment may be provided with infra-red proximity detection, reading on "a sub base pilot signal" so as to detect when the user equipment is within the cordless environment.

Regarding claim 24, Wenk teaches that upon detecting that signal which is transmitted by the system into which the user equipment is moving, the sub base commences communicating with the cellular network and the dual use UE begins communicating with the sub base.

Response to Arguments

Applicant's arguments filed 8/10/2005 have been fully considered but they are not persuasive.

- a. Regarding the Applicant's argument that **"Bell fails to teach a transition between cordless and cellular environments that is transparent to a user..."**

Paragraph 4 of page 4 of the Examiner's detailed Action address the Bell reference and its' failure to teach a transparent transition between cordless and cellular environments. **Ostling (US 6,327,470)** has been relied upon as teaching a means for providing transparent transition between two such environment. See the detailed office action, above.

- b. Regarding the Applicant's argument that **"Bell fails to disclose a sub-bas ceasing communication with a cellular base station responsive to a sent hand-off signal..."**

Paragraph 1 of page 4 of the Examiner's detailed Action address the Bell reference and its' failure to teach that the sub-base will cease communication with the cellular base when the user equipment leaves the cordless environment. **Wenk (US 6,253,088)** has been relied upon as teaching this particular limitation, not taught by the Bell reference.

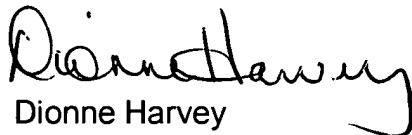
- c. Regarding the Applicant's argument that **"Unlike Ostling, The Dual Use UE Of Claim 17 Does Not Require A Three-Way Connection Nor The Initiation Of Multiple Calls To Effectuate A Transparent Transition"**


The claim language of the immediate Application merely requires that the transition between the cordless scheme and the cellular scheme in the UE is achieved in a transparent manner. The means by which the Ostling reference achieves a transparent transition is unimportant since it still succeeds in meeting the broad limitation of the claim. The rejection is therefore, maintained.

Conclusion

THIS ACTION IS MADE FINAL. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.


Dionne Harvey


DUC NGUYEN
PRIMARY EXAMINER